

**IN THE CLAIMS**

*Please amend the claims as indicated in the rewritten claims listed below:*

**Claim Amendments:**

1. (**Currently Amended**) ~~A Method~~ method for managing applications, making use of at least two physical machines linked by communication means, ~~these machines comprising a physical structure on which is loaded a first software layer adapted to this machine as well as a second layer forming a virtual layer on which virtual machines will operate, the latter comprising at least one application, this~~ the method comprising ~~the following steps:~~

connecting ~~connection of the~~ at least two physical machines ~~for the formation of to form~~ a physical machine network, wherein each of the physical machines comprise a physical structure on which is loaded a first software layer adaptable to the corresponding physical machine as well as a second layer forming a virtual layer on which virtual machines will operate, the virtual layer comprising at least one application, the physical machine network includes a virtual layer for each physical machine;

loading of a control ~~program programme~~ associated to the virtual layer of each physical machine;

establishing ~~establishment of~~ a dialogue between the control ~~program programme~~ and a system management process;

establishment of a physical machine network including the virtual layers,

defining a service containing a plurality of applications, the service defined ~~definition by~~ the system management process; ~~of a service containing several applications;~~

communicating ~~communication~~ between the system management process and each

virtual layer in order to determine the status of the virtual machines associated to with said virtual layer;

assigning ~~assignment~~ of a virtual machine to ~~one of the~~ corresponding virtual ~~layer~~ layers taking into account ~~the~~ one or more characteristics of the application associated with the corresponding virtual layer, wherein the virtual machine is independent of the corresponding physical machine.

2. **(Currently Amended)** The method ~~Method~~ according to claim 1, wherein loading the control program ~~programme~~ includes determining ~~means to determine the~~ status of each physical machine on which a virtual layer is placed and ~~to communicate this~~ communicating the status of each physical machine to the system management process by communication means.

3. **(Currently Amended)** The method ~~Method~~ according to claim 1, wherein loading the control program ~~programme~~ further includes determining ~~means to determine the~~ status of each virtual machine associated ~~to a~~ with the virtual layer of the ~~concerned~~ corresponding physical machine and ~~communicates this~~ communicating the status of each virtual machine to the system management process by communication means.

4. **(Currently Amended)** The method ~~Method~~ according to claim 1, wherein the system management process further includes ~~carries out the following steps:~~

determining one or more ~~determination of the~~ characteristics of the virtual machines and of ~~[[the]]~~ one or more resources necessary for ~~their operation~~ operating the virtual machines; ~~[[.]]~~  
assignation of a virtual machine with the virtual layer of a physical machine,

~~performing~~ surveillance of the ~~operating~~-status of ~~[[a]]~~ each virtual machine ~~using~~ ~~thanks~~  
~~to~~ the control ~~program~~; ~~programme~~;

~~associating~~ ~~association~~ of the status of ~~to~~ each virtual machine forming ~~[[a]]~~ the  
service;~~[[.]]~~ and

~~transmitting~~ ~~transmission~~ of ~~this~~ the status of each virtual machine associated with the  
service to an operator.

5. **(Currently Amended)** ~~The method~~ Method according to claim 4, wherein the system  
management process ~~further includes~~ ~~carries out the following steps during a displacement of a~~  
~~virtual machine of a first physical machine on a second physical machine:~~

~~when the virtual machine is to be relocated from a first physical machine to a~~  
second physical machine,

~~transmitting~~ ~~transmission~~ of a stop instruction to the control ~~program~~ ~~programme~~ ~~situated~~  
~~on~~ available at the first physical machine;~~[[.]]~~

~~identifying~~ ~~establishment~~ of the data pertaining to the stopped virtual machine located on  
the first physical machine;~~[[.]]~~

~~transferring~~ ~~transfer~~ of ~~this~~ the identified data ~~to~~ ~~towards~~ the second physical  
machine;~~[[.]]~~

~~assigning~~ the ~~assignment~~ of the ~~stopped~~ virtual machine ~~to~~ ~~towards~~ the second physical  
machine;~~[[.]]~~ and

~~reactivating~~ ~~reactivation~~ of the virtual machine.

6. **(Currently Amended)** ~~The method~~ Method according to claim 5, wherein upon successful

reactivation of once the virtual machine has been successfully reactivated, the system management process further includes,

transmitting an ~~transmits the~~ instruction to the control program ~~programme~~ of the first physical machine to suppress the data pertaining to the ~~this~~ virtual machine.

7. **(Currently Amended)** The method ~~Method~~ according to claim ~~[[1]]~~ 5, wherein the system management process further includes,

defining a definition of the one or more operating constraints ~~for of the one or more~~ virtual machines ~~relative to associated with a service, and~~ wherein the assignment ~~assigning~~ of a virtual machine to a virtual layer of a physical machine ~~as well as and the displacement relocation of said virtual machine towards to another virtual layer associated with the second physical machine~~ takes into account ~~these the~~ the one or more operating constraints.

8. **(New)** A method for managing applications, comprising:

establishing a communication link between at least two physical machines to define a physical machine network, the physical machines having a system management process to manage physical resources available at the corresponding physical machines;

defining a virtual layer for each physical machine, the virtual layer providing an interface to the physical machines to access the physical resources of the physical machines, each virtual layer having a control program to communicate with the system management process;

defining services for specific ones of the virtual layer associated with the physical machine of the physical machine network, the service including at least one application;

defining at least one virtual machine associated to selected physical machines using the

virtual layer, the virtual layer associated with the service;

monitoring inventory of the physical machines and the virtual machines, the inventory identifying resources available at the physical machines and resources required at the virtual machines of the physical machine network; and

assigning at least one of the virtual machines to a corresponding physical machine based on resource requirement of the application associated with the service, wherein the virtual machine is independent of the corresponding physical machines

9. **(New)** The method of claim 8, wherein the system management process further includes, anticipating resource requirements of the application associated with the service; and developing resources at the physical machine network to address the resource requirements of the application such that the physical machine network is able to handle the resource requirement load of the service.

10. **(New)** The method of claim 8, further includes replacing a physical machine in the physical machine network, the replacement includes,

suspending operation of the virtual machine executing at the virtual layer associated with the physical machine identified for replacement;

identifying data associated with the virtual machine at the physical machine, the data directly associated with the application executing at the virtual machine;

transferring the identified data to a different physical machine;

associating the virtual machine corresponding to the transferred data to the different physical machine; and

activating the virtual machine so as to execute the application at the virtual layer associated with the different physical machine using the data and resources at the different physical machine.

11. (New) A method for managing applications, comprising:

defining a physical machine network by communicatively connecting at least two physical machines, the physical machines having a system management process to manage physical resources available at the corresponding physical machines;

providing a virtual layer on each physical machine, the virtual layer including at least an application that is executed using at least one of a plurality of virtual machines;

associating a control program to the virtual layer on each of the physical machines, the control program managing the operation of the plurality of virtual machines;

coupling the system management process to each virtual layer in the physical machine network, the coupling enabling dialogue between the system management process and the corresponding control program of each virtual layer, wherein the dialogue includes determining status of the physical machines and the plurality of virtual machines within the physical machine network, establishing resource availability at the physical machines and resource requirements of the plurality of virtual machines; and

associating selected ones of the plurality of virtual machines to the virtual layer of particular physical machines within the physical machine network based on the characteristic requirements of the application available at the virtual layer of the particular physical machines, wherein each of the plurality of virtual machines is independent of the corresponding physical machines.

12. (New) The method of claim 11, further includes,  
defining a service containing a plurality of applications; and  
supervising operation of the service by one of supervising each of the applications  
or supervising each of the virtual machines that execute each of the applications.

13. (New) The method of claim 11, further includes relocating a virtual machine from a first  
physical machine to a second physical machine within the physical machine network, the  
relocation includes,

suspending operation of the selected ones of the plurality of virtual machines  
associated with the first physical machine;

dissociating the control program at the virtual layer of the first physical machine  
from the corresponding selected ones of the plurality of virtual machines;

identifying data associated with the application executed on the selected ones of  
the plurality of virtual machines at the first physical machine;

transferring the data associated with the selected ones of the plurality of the  
virtual machines from the first physical machine to the second physical machine;

providing a virtual layer at the second physical machine, the virtual layer  
including an application to be executed by the selected ones of the plurality of the virtual  
machines;

assigning the selected ones of the plurality of the virtual machines to the virtual  
layer at the second physical machine, the assigning includes associating a control program to the  
virtual layer at the second physical machine so as to manage the operation of the selected ones of  
the plurality of the virtual machines by establishing dialogue between the system management

process and the control program; and

activating the selected ones of the plurality of the virtual machines so that the selected ones of the plurality of the virtual machines can execute the application at the virtual layer using the resources and data available at the second physical machine.